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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/510,000	12/08/2004	Kia Silverbrook	YU182US	4623

24011 7590 12/22/2006  
SILVERBROOK RESEARCH PTY LTD  
393 DARLING STREET  
BALMAIN, NSW 2041  
AUSTRALIA

EXAMINER
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HUFFMAN, JULIAN D

ART UNIT	PAPER NUMBER
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2853

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/22/2006	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/510,000

Applicant(s)

SILVERBROOK, KIA

Examiner

Julian D. Huffman

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**


- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 10/5/04.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Double Patenting*

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-11 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-11 of U.S. Patent No. 6,857,724.

Although the conflicting claims are not identical, they are not patentably distinct from each other because, while the claims of the patented application contain additional limitations not found in the present application, the patented application provides all of the limitations of the claims of the present application.

Art Unit: 2853

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-5, 8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. (U.S. 6,467,870 B2).

Matsumoto et al. disclose a print assembly for a wide format printer, the print assembly comprising:

an elongate carrier (14) that is mounted on a support structure of the printer (inherent to support the printer structure) in an operative position with respect to a platen of the wide format printer (column 6, lines 16-20);

a number of printhead chips (22) positioned on the carrier, the printhead chips together incorporating a number of nozzle arrangements, the printhead chips being positioned so that the printhead chips are capable of ejecting ink drops into a printing zone defined by the platen;

control circuitry that is also positioned on the carrier and that is configured to control operation of the printhead chips (fig. 2, element 38, column 7, lines 28-31 and 41-45); and

a media feed mechanism positioned on the support structure to feed media into the print assembly (column 7, lines 46-51).

With regards to claim 5, the limitation that the chip is the product of an integrated circuit fabrication process is directed towards a method of manufacturing the printhead and does not further limit the apparatus.

Matsumoto et al. disclose that the number head chips is not limited (column 6, lines 23-26).

Matsumoto et al. do not expressly disclose the claimed number of nozzle arrangements.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide, in the invention of Matsumoto et al., the claimed number of nozzle arrangements. The reason for performing the modification would have been to select the number of nozzle arrangements and print head chips to provide the desired size, number of pixels and resolution (column 6, lines 23-26).

5. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. in view of Fabbri (U.S. 6,068,367).

Matsumoto et al. disclose CMOS driver circuitry on each printhead chip which functions as control circuitry (fig. 2, element 38, column 7, lines 28-31 and 41-45).

Matsumoto et al. further discloses a micro electromechanical system since the device converts electrical energy into mechanical energy to propel and ink droplet, and the device structure is on the micro scale.

Matsumoto et al. do not expressly disclose control circuitry and CMOS driver circuitry provide on each printhead chip.

Fabbri discloses providing extensive control circuitry in addition to driver circuitry on each printhead chip in a page width printer (column 5, lines 36-61).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to, in the invention of Matsumoto et al., provide control circuitry on each printhead chip. The reason for performing the modification would have been to, as taught by Fabbri, simplify the structure of the lines used to connect the printhead chips (column 5, lines 55-57).

6. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. in view of Thiel (U.S. 5,752,303).

Matsumoto et al. disclose that consecutive printhead chips overlap at their ends (column 6, lines 49-55).

Matsumoto et al. disclose everything claimed with the exception of positioning each module at a common angle of greater than zero degrees and less than ninety degrees with respect to a line extending a length of the printing zone, so that consecutive printhead chips overlap at their ends.

However, Thiel discloses that oblique positioning of a module relative to the printing direction increase print density (column 13, lines 22-24).

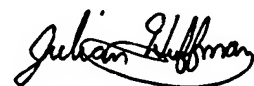
It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Matsumoto et al. by tilting the printhead chip modules. The reason for performing the modification would have been to increase the print density (column 13, lines 22-24).

**Conclusion**

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian D. Huffman whose telephone number is (571) 272-2147. The examiner can normally be reached on 10:00a.m.-6:30p.m. Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Julian D. Huffman  
Art Unit 2853  
16 December 2006